WHAT IS CLAIMED IS:

1. A method for supporting small group multicast in mobile IP in a mobile IP environment including a plurality of mobile nodes, a home network to which the mobile nodes belong, a home agent that is a router recognizing the current connection point of a mobile nodes on the home network to tunnel packets coming into the mobile node, a foreign network meaning a communication network other than the home network, a visited network meaning a foreign network to which the mobile node is currently being connected, a foreign agent corresponding to a router providing routing service on the visited network, and a care-of address meaning the end point of a tunnel toward the mobile node when the mobile node resides on the foreign network,

wherein, in case where the home agent receives an implicit multicast packet to be transmitted to the mobile node belonging to the foreign agent, the home agent shifts the received multicast packet to an explicit multicast packet including the IP address of the mobile node registered as a receiving part of the multicast packet to transmit it to the care-of address, and

in case where the home agent receives an explicit multicast packet to be transmitted to the mobile node belonging to the foreign agent, the home agent sends the multicast packet according to the care-of address shown in the received multicast packet.

2. The method for supporting small group multicast in mobile IP as claimed in claim 1, wherein, when the mobile node transmits the explicit multicast packet via a multicast router of the visited network, it uses the IP address of the home network as the multicast packet originating party's address.

3. The method for supporting small group multicast in mobile IP as claimed in claim 1, wherein, when the mobile node transmits the explicit multicast packet via the home agent, it uses a co-located care-of address as the multicast packet originating party's address.

4. The method for supporting small group multicast in mobile IP as claimed in claim 1, wherein, in case where a foreign agent who does not understand explicit multicast receives the multicast packet, the foreign agent transmits one of Internet control message protocol, destination protocol unreachable and protocol unreachable messages to the originating party's address of the received multicast packet.

5. The method for supporting small group multicast in mobile IP as claimed in claim 1, wherein the home agent includes a multicast group belonging to the home agent, foreign agents to which the mobile nodes receiving the multicast group are belong, and a database in which relationships among the mobile nodes registered with the foreign agents are defined in a tree form.